

WHAT IS CLAIMED IS:

CLAIM 1. In a pulling tool for pulling off a rotor of a motor or a fan from a shaft, and the like, said pulling tool comprising an elongated screw having a first end and a second end, a housing with which said screw is threadingly received, said housing comprising a first open end through which threadingly passes said screw, and a second open end through which protrudes said second end of said screw, said housing comprising at least first securing means for releasably holding a fan, and the like, said first securing means comprising a plurality of hooked securing arm-members, each said arm-member having a first end and a second hooked end, said second end of each said arm-member being capable of being hung so as to protrude beyond said second open end of said housing, wherein the improvement comprises:

said housing comprising a first, relatively-narrower section having a first end constituting said first open end, and a second end; and a second, relatively-larger section having a first end connected to said second end of said first section, and a second end constituting said second open end of said housing; said first end of said second section comprising an annular surface portion; said annular surface portion having groove means formed therein for receiving said second end of said arm-members, whereby said arm-members may be suspended thereby.

CLAIM 2. The pulling tool according to Claim 1, wherein said groove-means comprises a continuous groove extending for a full 360 degrees about said annular surface.

CLAIM 3. The pulling tool according to Claim 1, wherein said groove-means comprises a plurality of separate, spaced-apart grooves extending about said annular surface.

CLAIM 4. The pulling tool according to Claim 3, wherein said plurality of grooves are equally-spaced apart about said annular surface.

CLAIM 5. The pulling tool according to Claim 4, wherein said plurality of separate, spaced-apart grooves are at least six in number.

CLAIM 6. The pulling tool according to Claim 1, further comprising second securing means comprising a plurality of rotatable bolts, and a plurality of holes formed in said housing for threadingly receiving said plurality of bolts, for releasably holding a rotor of a motor, and the like.

CLAIM 7. The pulling tool according to Claim 1, wherein said second section is circular in cross section.

CLAIM 8. The pulling tool according to Claim 1, wherein said first securing means comprises at least three arm-members with the first ends of said three arm-members being removably mounted in three said holes of said second plurality of holes; said first securing means comprising at least three bolts mounted in said first plurality of holes.

CLAIM 9. The pulling tool according to Claim 1, wherein each said arm-member comprises a main elongated portion, said first end having an acute-angle portion extending at an acute angle with respect to said main elongated portion, whereby each said arm is removably held in said groove means by said acute-angle portion, in order to substantially help prevent accidental removal of said first end therefrom.

CLAIM 10. The pulling tool according to Claim 9, wherein said groove means comprises an inner wall and an outer wall, and has a depth for receiving therein each said acute-angle portion of said first ends such that each said acute-angle portion of said first ends engagingly abuts against a respective portion of said inner wall, said respective portion of said inner wall helping to prevent each respective said first end from escaping said groove means.

CLAIM 11. The pulling tool according to Claim 1, wherein said inner wall forms part of the outer circumferential surface of said first narrower section of said housing.

CLAIM 12. A method of using a pulling tool for pulling off a rotor of a motor or a fan from a shaft, and the like, said pulling tool comprising an elongated screw having a first end and a second end, a housing with which said screw is threadingly received, said housing comprising a first open end through which threadingly passes said screw, and a second open end through which protrudes said second end of said screw, said housing comprising at least first securing means for releasably

holding a fan, and the like, said first securing means comprising a plurality of hooked securing arm-members, each said arm-member having a first end and a second hooked end, said second end of each said arm-member being capable of being hung so as to protrude beyond said second open end of said housing, said housing comprising a first, relatively-narrower section having a first end constituting said first open end, and a second end; and a second, relatively-larger section having a first end connected to said second end of said first section, and a second end constituting said second open end of said housing; said first end of said second section comprising an annular surface portion; said annular surface portion having groove means formed therein for receiving said second ends of said arm-members, said method comprising:

(a) inserting said first ends of said plurality of arm-members in said groove means; and

(b) slidably moving said first ends in said groove means in order to achieve a desired spacing between said first ends, whereby said arm-members are spaced apart in an optimal fashion.

CLAIM 13. The method according to Claim 12, wherein said groove-means comprises a continuous groove extending for a full 360 degrees about said annular surface, said step (b) providing a substantially infinite spacing-adjustment capability between said arm-members.

CLAIM 14. In a pulling tool for pulling off a rotor of a motor or a fan from a shaft, and the like, said pulling tool comprising an elongated screw having a first end and a second

end, a housing with which said screw is threadingly received, said housing comprising a first open end through which threadingly passes said screw, and a second open end through which protrudes said second end of said screw, said housing comprising a first securing means for releasably holding a rotor of a motor, and the like, and second securing means for releasably holding a fan, and the like, said first securing means comprising a plurality of rotatable bolts and a first plurality of holes formed in said housing for threadingly receiving said plurality of bolts, and said second securing means comprising a plurality of hooked securing means, each said hooked securing means having a first end and a second hooked end, and a second plurality of holes for removably mounting said arm-members, said second end of each said arm-member being capable of being hung so as to protrude beyond said second open end of said housing, wherein the improvement comprises:

said housing comprising at least a first section having a circular cross section; said second plurality of holes being formed in said circular cross-section section; said second plurality of holes being equally spaced about said section.

CLAIM 15. The tool according to Claim 14, wherein said second plurality of holes comprises six holes spaced equidistantly apart about the circumference of said circular cross-section section.

CLAIM 16. The tool according to Claim 15, wherein said second securing means comprises at least three arm-members with the first ends of said three arm-members being removably mounted in

three said holes of said second plurality of holes, said three holes being alternate ones of said holes of said second plurality of holes.